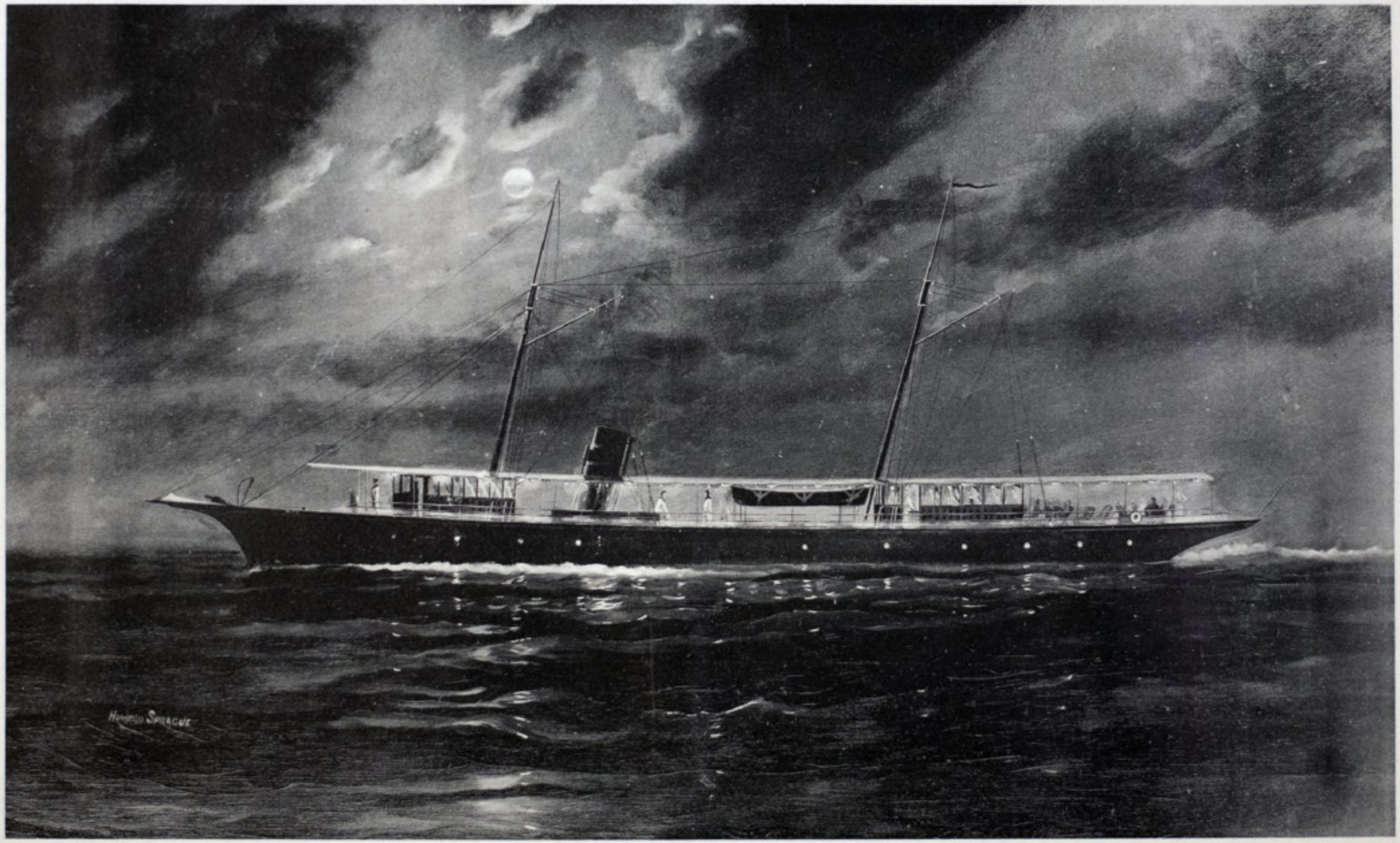


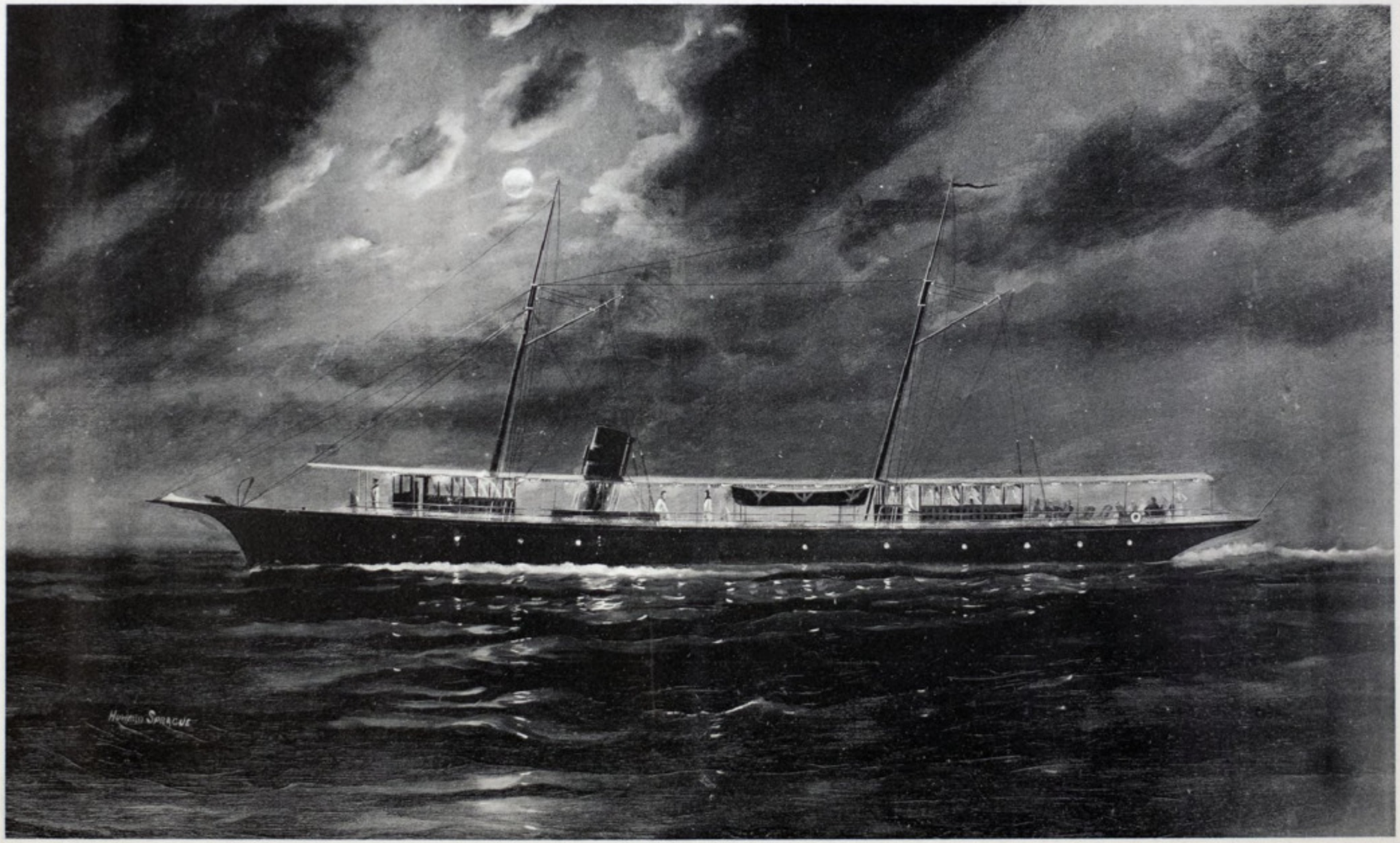
EQUIPPED WITH **ROBERTS** SAFETY WATER TUBE BOILER.



# "SAY WHEN."

OWNED BY

(W. J. WHITE, Cleveland, Ohio.)



EQUIPPED WITH **ROBERTS** SAFETY WATER TUBE BOILER.



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# THE MARINE RECORD.

DEVOTED TO COMMERCE, ENGINEERING AND SCIENCE.

ESTABLISHED 1878.

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## BIOGRAPHICAL SKETCH OF WILLIAM J. WHITE.

[ILLUSTRATED.]

The subject of the following brief biographical sketch, in connection with the accompanying portrait, will serve to make our readers literally acquainted with the career of William J. White, a vessel owner of wide popularity, and an aspirant for congressional honors from the 20th District.

William J. White is still a young man, being barely 42 years of age. The early years of his life were passed on a farm in Geauga county, Ohio, until 1868, when he came to Cleveland, where he has since resided. His youth was one of privation and hardship, and it was not until 15 years ago that he hit upon the manufacture of chewing gum from paraffine. For ten years he was thus engaged, meeting with varying success, until 1886, when he first placed upon the market his Yucatan gum; his success was instantly so phenomenal that his business to-day is without doubt the largest in the world, and Yucatan gum is as well known in the antipodes as in Cleveland.

Mr. White is essentially a self-made man. There is no element of luck in his case, nothing but hard work, long years of energetic and intelligent application and unceasing industry. Nobody will grudge him the profits he has derived from his business. He is the inventor of all the machinery in use in his factory, and knows his business from the ground up. Beyond this main employment, he is a director in several banks, owns large and important vessel interests, and finds time to look after his Two-Minute stock farm, one of the largest and finest in the country, where he has gathered together some of the choicest animals that ever delighted the lover of the thoroughbred horse.

With his amiable wife, *nee* Miss Ellen M. Mansfield, and their seven children, Mr. White lives in a model residence, Thornwood by name, on the bank of the lake, about midway between the city and Rocky river, where his *lares et penates* are found in solid home comfort, and all that can make home life pleasant and attractive. A man of strong character and marked individuality, he is generous to a fault, a liberal contributor to every worthy charity, and a man who will ever lend a helping hand to the poor and the needy. That his humane views are of a practical nature is evidenced by the fact that his three hundred employes are better paid than any others performing similar work.

There is not the first jot of affectation in the man. He is just what he stands for, a good and enterprising citizen, a clever and successful business man, and a whole-souled, large-hearted gentleman, who is voted a prince of good fellows among his associates, both in marine and commercial circles.

WILLIAM J. WHITE.

## INADEQUATE RANGE LIGHTS.

In THE RECORD of August 18 we published a communication from Capt. P. L. Millen, of the steamer Joliet, calling attention to the inadequacey of the private range lights at Point Edwards and Fort Gratiot. In reply to Capt. Millen's letter, marine reporter J. J. Lynn, of Port Huron, has written to Capt. George P. McKay, of Cleveland, in regard to the lights, and stating that the complaints are well grounded, the fault lying with an electric company at Port Huron, which allowed the power to run down. He states that the lights did not show upon 14 nights during August. He has procured an oil light for the red light, which is now in position, and he asks that captains report to him now how the light appears at a distance of four miles, a feature which it is hoped will be strictly complied with as the lights to be of benefit to the general commerce ought certainly to be visible at that distance.

## SEAMEN'S UNION, VERSUS LIFE SAVERS.

The Chicago Branch of The Lake Seamen's Benevolent Association, has offered a reward of $10 for the recovery of any of the bodies from the City of Toledo, recently lost in Lake Michigan. A request will also be sent to the Secretary of the Navy for an investigation into the conduct of the life-saving crew at Manistee, at the time the City of Toledo was lost. The Union charges that the crew acted with great cowardice on that occasion. It is also stated in the communication that the Association can prove that two-thirds of the crew at all the life-saving stations on the lakes are not fit for the positions they hold as life-boat crews.

The Cyclone elevator at Buffalo has found a resting-place again. She will hereafter do business just inside the Erie basin breakwater, where a good out of the way place has been found for her. It ought to be handy, too. Besides, it will keep canal boats out of the creek.

It might not be a bad idea to devote the money voted to put an exhibit in the Chicago Exhibition to paying the tolls taken on Canadian vessels at the "Soo."—*Montreal Star.*

## MARITIME STATISTICS OF THE GREAT LAKES.

From advance sheets of the forthcoming report on the "Commerce of the Great Lakes," by Chief Brock, of the Census Bureau, Statistic Department, much interesting information is obtained.

La Salle and Father Hennepin launched the first regular vessel on the upper lakes in May, 1679. She was called the Griffin, and went as far west as Green Bay, but was lost with a cargo of furs on her return voyage. The first American vessel launched was built at Erie, Pa., in 1797, and the first steam vessel that navigated the lakes was built at Sackett's Harbor, New York. The schoner Illinois was the first vessel to reach Chicago from the lower lakes, July 12, 1834. On that occasion all the male inhabitants of the village, including the boys, about one hundred in number, assisted in dragging the craft across the bar. The first American vessel launched upon Lake Superior was the John Jacob Astor, in 1835. The fleet navigating the lakes now consists of 2,125 vessels, (not including small tugs and steam canalboats), with a tonnage of more than 870,000 tons, and a value of more thau $57,000,000. There are more than double the number of American vessels engaged in the lake traffic of the United States than there are engaged in the foreign trade, even taking in all the ports on the Atlantic, Pacific and Gulf coasts. The tonnage carried during the past year, if loaded into freight cars, would have covered more than 13,400 miles of track, and would have stretched from New York to Chicago and back nearly eight times. The basin area of the lakes, which is 270,000 square miles. embraces more than half the total fresh water area on the surface of the globe. Its total coast line is over 3,000 miles. The eight great States which border on the lakes have a population of over 26,000,000.

All of these facts are of course more or less familiar to many, but their grouding together in a connected form makes very interesting reading. Concerning the improvements of the channels connecting the lakes Chief Brock says: "Liberal appropriations have been made in the past that have resulted in the great improvements in the channels, and the policy now appears to be to enlarge and deepen all channels so as to render the lakes west of Buffalo navigable for vessels drawing twenty feet of water. By this means, not only will the channels be available for the increasing size of the vessels, but the traffic of the lakes will be greatly increased. Commendable progress has been made in this direction, and the work is still advancing. The prominent points at which these improvements are being made are Lime Kiln Crossing in the Detroit River, St. Clair Flats Canal, at the upper end of Lake St. Clair, St. Mary's Falls Ship Canal, )through which Canadian vessels by the recent proclamation of the President are required to pay 20 cents a ton on all freight,) Hay Lake Channel, St. Mary's River, and several other points. When these improvements are completed the very much desired result of navigation for vessels drawing twenty feet of water throughout the entire chain of lakes from above Lake Ontario will be accomplished, a result that will be not only of incalculable benefit to the commerce on these inland seas, but of great credit to our government. There has been expended on these improvements up to 1891 the sum of $37,247,000."

## LAKE CARRIERS' ASSOCIATION.

To consider and take action upon all general questions relating to the navigation and carrying business of the Great Lakes, maintain necessary shipping offices and in general to protect the common interest of Lake Carriers and improve the character of the service rendered to the public.

President: M. A. BRADLEY, - - Cleveland.

Vice-Presidents:

| | | | |
|---|---|---|---|
| JOHN G. KEITH - | Chicago. | JAMES W. MILLEN, - | Detroit |
| W. S. BRAINARD, - | Toledo. | F. J. FIRTH, - | Erie |
| R. P. FITZGERALD, - | Milwaukee | THOMAS WILSON, - | Cleveland |
| ALEXANDER MCDOUGALL | Duluth | P. P. MILLER, - | Buffalo |

Secretary: CHARLES H KEEP, - Buffalo.
Treasurer: GEO. P. MCKAY, - - Cleveland.
Counsel: HARVEY D. GOULDER, - Cleveland.

Board of Managers.

| | | | |
|---|---|---|---|
| F. W. Baldwin, - | Ogdensburg. | Thomas Wilson, - | Cleveland. |
| F. J. Firth, - - | Erie | H. M. Bradley, - - | Cleveland. |
| W. E. Chapman, - | Sandusky. | Jos. Corrigan, - | Cleveland. |
| C. T. Morley, - | Marine City | H. M. Hanna, - - | Cleveland. |
| Alvin Neal, - - | Port Huron. | G. P. McKay, - | Cleveland. |
| James Davidson, - | Bay City. | H. G. Dalton, - - | Cleveland. |
| Charles A. Eddy, - | Bay City. | Harvey H. Brown, - | Cleveland. |
| Alexander McDougal, - | Duluth | J. W. Moore, - - | Cleveland. |
| F. W. Gilchrist, - | Alpena. | H. L. Pennington, - | Cleveland. |
| J. C. Gilchrist, - | Vermilion. | Henry A. Hawgood, - | Cleveland. |
| J. L. Higgie, - - | Chicago | W. C. Richardson, - | Cleveland. |
| Jesse Spaulding, - | Chicago | S. D. Caldwell, - - | Buffalo. |
| J. S. Dunham, - - | Chicago. | Peter P. Miller, - | Buffalo. |
| John Keith, - - | Chicago | E. T. Evans, - - | Buffalo. |
| Joseph Austrian - | Chicago. | James Ash, - - | Buffalo. |
| David Vance, - | Milwaukee. | W. Bullard, - - | Buffalo. |
| R. P. Fitzgerald, - | Milwaukee. | J. J. H Brown, - - | Buffalo. |
| W. Livingstone, Jr, - | Detroit | W P Henry, - - | Buffalo. |
| James Millen, - | Detroit | John Gordon, - - | Buffalo. |
| David Carter, - - | Detroit. | W. S. Brainard, - | Toledo. |
| E. M. Peck, - | Detroit. | L. S Sullivan, - - | Toledo. |
| D. C. Whitney, - - | Detroit. | A. W Colton, - - | Toledo. |
| H. S. Hodge, - - | Detroit | | |

### CLEVELAND, O.

Mr. Ernest N. Janson, Superintendent of Construction U. S. Lighthouse Service, left port on Monday in the lighthouse tender Columbine. This contract completes his stay in Cleveland, and we hope that the Board will soon place other contracts here, so that Mr. Janson may again be detailed to this port, where he has not only made a host of friends, but has acquitted himself as an expert in shipbuilding and provided for the Government two of the staunchest tenders in the service of the Lighthouse Board.

Mr. Walfrid Sylven, Superintendent Marine Engineer U. S. Lighthouse Service, arrived in the city on Sunday, and the following day embarked on the lighthouse tender Columbine for the coast. The Columbine is to be stationed at Portland, Oregon, and has a neat 15,000 miles to travel to her station, such being the approximate distance from Cleveland to that port.

Capt. Charles W. Brown, late of the steamer Northern King, who has been critically ill at his home, No. 17 Birch street, for about 14 months, is able to be out and again visit the docks.

Superintendent F. A. Kirby, of the Wyandotte Ship Yard, Wyandotte, Mich., visited Cleveland this week, and in conversation with THE RECORD man, stated that guesses on the loss of the steel steamer Western Reserve was a good deal like the Louisiana lottery deal—liable to be away off, and especially so in the actual facts of the loss with those who were not thoroughly conversant with the art of iron and steel shipbuilding.

It has been decided to inter the remains of Captain Minch on Saturday at one o'clock in the family burial lot at Woodland Cemetry. The funeral services will be conducted by Rev. A. Dreher of the Seventh German Reformed Church, Wilcutt street. of which church Capt. Minch was a member. Rev. Dreher will be assisted by Rev. Paul Sutphen in the services.

If the body of H. H. Burroughs, one of the firemen of the Western Reserve, is recovered his friends earnestly request the finder to immediately communicate with the Rev. E. Wallace Waitts at Owen Sound, Ont. They are anxious to have the remains interred at that place. Burroughs came from Norwich, England, a year or two ago and was working to fit himself for a marine engineer.

Messrs. Phillip Minch and C. F. Palmer arrived at this port early Thursday morning on the steamer Phillip Minch with the bodies of Capt. Peter G. Minch, Mrs. Mary Englebry and first mate Eggleston. The latter has a mother living in Brooklyn, N. Y., and the body will be sent there for burial.

A meeting of the E. M. B. A. was called for Thursday afternoon to take suitable action on the death of members, Capt. Peter Minch, Capt. Albert Myers and Capt. Reed.

The workman now engaged at a West Bay City shipyard, who assumes to be conversant with the entire construction of the foundered steamer Western Reserve, worked but eighteen hours in all upon that vessel's hull, and was discharged for incompetency and poor work, and yet the daily press have been eager to grasp at the empty vaporings of an irresponsible sorehead.

Mr. Luther Allen, Secretary and Treasurer of the Globe Iron Works Co., is away on the new lighthouse tender, Columbine, on her trip to the coast. Mr. William L. Clarke, from the Globe office, is also on the cruise.

Mrs. Anne Reid Wilson, relict of the late Gap.t Chomas Wilson, Sr., and mother of Capt. Thomas Wilson, Jr., and Mr. William Wilson of the Wilson Transit Line died on Wednesday afternoon at her home, No. 865 Logan avenue. She was born in Path Head, Fifeshire, Scotland, on Augnst 3d, 1809. When about twenty years old she was married to Captain Wilson. In 1857 the family came to the United States and settled In Philadelphia. Five years later they removed to Sault Ste. Marie and became connected with the lake traffic. About fifteen years ago Cleveland became their home.

### CHICAGO, ILL.

*Special Correspondence to The Marine Record.*

The new steamer E. A. Shores, Jr., arrived here Tuesday morning on her maiden trip, with 666,000 feet of lumber from Ashland, Lake Superior. She was built by Riebolt & Wolter, shipbuilders, Sheboygan, Wis., and is a very handsome, well built steamer. Her dimensions are 185 feet long over all, 34 feet 6 inches breadth of beam, 11 feet depth of hold; engine, fore and aft compound, 16 and 43 by 36, built by the Sheriffs Manufacturing Co., Milwaukee. Her boiler pump, bilge pump and condenser are independent. Her boiler is 10 by 12, and was built by the Manitowoc Steam Boiler Co. She also has a Sheriffs steam steerer and wheel. The steamer is very strongly built and has steel arches 24 inches wide by ¼ inch thick, and diagonal iron strapping 8 inches wide and ½ inch thick. She also has a water bottom 30 inches deep, to be filled with water for ballast when running light. She is well finished and furnished in every respect, and does great credit to her builders. Capt. John A. Connelly is in command; Henry Hayes, chief engineer.

Capt. Simon O'Day has sold his interest in the steam barge D. W. Powers to the Shores Lumber Co., of Ashland, and has resigned his command of her. Capt. William Coleman, formerly of the steamer Hickox, has succeeded him. The Powers will have the schooner Constitution as her consort, and will trade between Ashland and Chicago with lumber.

The steamer Onoko, which has been in commission ten years, and was the first iron steamer built by the Globe Iron Works, still maintains her reputation as one of the largest carriers, she having broken the record of the unfortunate steamer Western Reserve, by taking out of this port last week 113,734 bushels of wheat.

Conrad Starke, of Milwaukee, was in this port Tuesday.

Joseph Wolter, of the firm of Reibolt & Wolter, shipbuilders, Sheboygan, Wis., was here Tuesday.

The firm of Reibolt & Wolters are building a tug 75 feet over all, 14 feet beam, 8 feet hold. Her engine, 14 by 16 is being built by Kohler & Haysen, Sheboygan. She will have a Scotch type boiler 6 by 8 feet. Capt. Gus Gunderson will own her, and will use her for fishing purposes.

We are sorry to learn that Capt. Charles McIntosh, of the steamer City of Chicago, of the Graham & Morton line, was compelled, through sickness, to give up command of the steamer on Monday, and go to his home at Detroit. Capt. Ed. Stines, of the Chicora, is now commanding the City of Chicago, and Capt. Levi Mann is in charge of the Chicora.

We are pleased to learn that Mr. Graham, of the firm of Graham & Morton, has fully recovered from his recent attack of sickness.

Steamers whose inspection certificates run out during the month of September, in Chicago district: Cisco, Sept. 1st; Charley Stein, Sept. 5th; A. C. Van Ralte, Sept. 11th; John W. Moore, Sept. 15th; Viking, Sept. 17th; Sunbeam, Sept. 25th; James R. Langdon, Sept. 25th.

Daniel Robertson has been appointed chief engineer of the passenger steamer Nebraska; John Gallagher, first assisiant engineer; John Naughton, second assistant engineer.

The steamer Nebraska, Capt. William Chateau, commenced running excursions to Michigan City last Sunday and took along a large number of passengers. She went to South Chicago Tuesday afternoon to take an excursion party to view the electric fountain at Lincoln Park, from Lake Michigan. The Nebraska has received a permit to carry 1,500 passengers.

The seamen's Benevolent Association at this port took part in the procession on labor day. Nearly 500 of its members were on parade, and they looked A1 in their white duck trousers and blue shirts. Their full rigged model of Columbus' ship, Santa Maria, manned by a sailor dressed as Columbus in command, and his crew representing Spanish sailors, was one of the greatest draws in the procession, and received hearty plaudits from the crowds of spectators.

At Miller Bros. shipyard the fireboat Yosemite was in dock to have a leak stopped, and some iron plating on her bottom; the tug S. O. Dixon for a new wheel; scow Laura Miller to have a leak stopped; the tug Commodore Jack Barry for a new stern and some other repairs; tug W. H. Wolf for fastening wheel; schooner F. B. Wade for some new plank on her bottom; steam barge City of New York for repairs; steamer Scotia for a new shoe by Donaldson Bros.

WILLIAMS.

### BUFFALO, N. Y.

*Special Correspondence to The Marine Record.*

Capt. P. J. Kenney of the steamer Florida did not recover from his illness as soon as was expected and is still confined to his home on Park street. It may be several weeks yet before the Captain will be able to take charge of his vessel again.

James A. Dumont, Supervising Inspector General of steamboats, paid a visit to Buffalo this week. He transacted nothing, but routine business.

General Manager Bullard of the Union steam boat company is back from a business trip to New York.

The excursion boats have began to lay up. The Niagara is getting ready for her winter ferry route, and the new steamer Columbia after a successful season has been put in winter quarters. The Oclemena which was chartered for the season by Sloan & Cowles has been turned over to her owners.

Here as at every other lake port, the Western Reserve disaster has been a great topic of conversation and argument among the vessel men. The concensus of opinion is that the vessel must have sustained some strain from improper loading and that then the pushing her light through a heavy head sea, caused the steamer to shear her rivets amidship and break in two. All agree that the Western Reserve was a boat of unusual strength and of excellent build.

A cut of the rejuvenated steamer Nevada, which now hails from Buffalo again on acount of libel proceedings instituted at Milwaukee shows changes in the old freighter which make her almost unrecognizable. Her boilers have been let down into the hold and are fired from forward instead of aft as formerly. She is the largest excursion steamer on the lakes, and Capt. Galvin, her principal owner, says it would take but $600 or $700 to put her in shape for a fine package freight carrier again, as she is all new inside.

Capt. Jack Glover of the tug O. W. Cheney has returned from Chicago where he has been on a vacation. He is as full of new tales as Chicago harbor is of smoke.

The steamer Oclemena was on Horseshoe reef last Saturday night, and her passengers had to be taken ashore by tugs. She was finally released by the tugs Gee and Kelderhouse.

Mate G. W. Swift of the steamer Gazette has been appointed master of the same vessel, in place of Captain Thomas Doyle, who goes back to tug work again.

The steamer St. Louis parted her tow line in last weeks blow and with difficulty picked up her barges. Kingfisher, Champion and Potomac, and got them safely behind the breakwater. In the same blow, the tug Sumner lost about half of her raft of logs, but recovered them later.

The barge Dayton dumped off part of her lumber deck load in going down Niagara river last Monday.

Capt. "Windy" Young of the steamer Pabst persisted in trying to make the Reading dock without tugs and goes aground every time. For the second time this season the last week went hard on the shoal below the channel and two tugs worked two hours before the steamer was released. It cost about $50, and the tow bill would have been $12. The tug men are hoping he will try it again.

Shipping Master Lynch has been appointed a Deputy Sheriff, to protect the property of the Lake Carriers' Association at this port.

J. B. P. J.

### DETROIT, MICH.

*Special Correspondence to The Marine Record.*

Capt. Ed. Hewitt made an excellent record with the schooner Saveland, last trip from Escanaba to this port, he sailed the entire distance in two days and five hours and logged the schooner a good thirteen miles an hour part of the time down Lake Huron. She was deeply laden with ore but being a good vessel the captain thought it advisable to get her over the ground as fast as she could possibly travel. This is a season record; the vessel's draft was 14 feet 8 inches.

The car ferry St. Ignace was inspected at this port last week and the iron sheathing on her bottom found to be in as good condition as when she left the hands of the shipbuilders, consequently there was nothing to be done in dock, but a little attention to her stern bearings. She will leave for the Straits as soon as some necessary repairs to her engines can be made.

Mr. F. A. Kirby, Supt. of the Wyandotte Shipyard has returned from a visit to Erie and Cleveland, taken in the interests of his firm, the Detroit Dry Dock Co.

Twenty boats entered for a race at this port on Monday under the auspices of the Detroit Yacht Club. The order of the finish was as follows: First class, Princess, Cora, and Crusader; second class, Alice Enright, Josephine, Lula B, Gertude, and Petrel; third class, Shamrock and Surprise; fourth class, Ugo, Naid, Madaline and viola; fifth class, Cyclone, North Cape and Eureka; sixth class, Olive, Eva and Norma; double cats Augusta S.

James A. Dumont, supervisor inspector general of steam vessels was here this week from Washington, D. C. In speaking of the Western Reserve disaster, he stated that the casualty would be investigated by Local Inspectors Daley and Coyne. Mr. Dumont could give no opinion as to whether the vessel was structurally weak, but said that it was possible that she was pushed into the heavy seas with undue haste. If a report is made to which the builders object there can be no appeal. Mr. Dumont and Supervising Inspector Westcott left yesterday for Chicago, where they will provide for a thorough enforcement of the steamboat inspection laws during the rush of the World's Fair travel.

## DULUTH, MINN.

*Special Correspondence to the Marine Record.*

The two big carriers of the Minnesota Iron Co., the Maritana and Mariposa have come and gone and the two biggest cargoes that ever passed the Sault have gone. There is a good deal of comment on the fact that one of two vessels measuring within 7 tons of each other should vary 300 tons on a similar draft, and of the case of the Western Reserve comes up as a moral. Both boats are splendid specimens of marine architecture and both received unlimited praise from all who were fortunate enough to examine them.

The Iron Range road begins ballasting its new track to the Mesaba mines this week, and expects to ship supplies and machinery into the mines before the month is over. The business of the big Biwabic mine goes to the road that succeeds in reaching it first, and both the new lines are therefore straining every nerve, for a carrying traffic of 400,000 tons a year is not to be disregarded. Ore shipments for August were just what the iron company had figured on, 225,000 tons, and they will be about the same this month. Chandler sent forward 133,000 to Minnesota 88,000, and the new Zenith moved 3,090—its first business.

At the shipyard the two steamers, 126 aud 127, are in frame, and the James B. Colgate is ready for launching. The dry dock is almost ready, and water was let in today. It will be opened with some ceremony in a week or two.

Duluth's crop year ended last week, and the showing of wheat receipts is wonderful. A total of 52,000 bush. of wheat was received here, and 46,000,090 bushels were shipped. Of the receipts 88 per cent. were of the three highest grades of No. 1 hard, No. 1 northern and No. 2 northern, while over half of the remainder was "no grade;" in other words wheat of an equally high grade that was slightly dampened. Such a proportion of high grade wheat has never yet been received at any large wheat centre, and such an amount of wheat in a year exeeeds the world's record except for Minneapolis, which draws a great deal of grain for its milling trade.

There is rather a good joke on the urbane and gentlemanly agent of the Sarnia line in connection with the recent retaliatory tolls at the Sault canal. He had figured on getting the United Empire through with a large cargo the day before the toll went into force and loaded her up with all she could get along under. Contrary to expectations, however, the boat did not make the canal until an hour or two too late, and the captain was forced to put up the tolls. It is not probable that any Canadian vessels except the Sarnia line boats will run here the rest of this season.

The Ossifrage, that was in the Duluth-Port Arthur trade a few years ago under the management of Capt. B. B. Inman, has been brought back here and is the property of the Smith-Fee Co., who operate a line of tugs in the log and general trade. She will be put by them in the Lake Superior passenger business, running from this city to Houghton, Isle Royale and intermediate points, and ought to be a big thing in that trade, as the Isle Royale business has this year become very large. The south shore business to Houghton and Hancock ought to be excellent, both for passenger and way freight. The Ossifrage has been lengthened, and is now an excellent boat.

In August there were 508 arrivals and departures of vessels at this port, with an aggregate tonnage of 542,698 tons. The itemized list is as follows: Coastwise, cleared, 215, tonnage, 245,587; coastwise, arrived, 211; tonnage, 242,777: American vessels from foreign ports. 13, tonnage, 6564; American vessels to foreign ports, 10; tonnage, 2550; foreign vessels from foreign ports, 29; foreign vessels to foreign ports, 30, tonnage 22,602. Total arrivals, 253; tonnage, 271,959. Total departures, 255; tonnage, 271,739. For the entire head of Lake Superior the total is about 33 per cent. more. D. E. W.

## CURRENT OBSERVERS ON THE LAKES.

*Special to The Marine Record.*

WASHINGTON, D. C.—Quite a number of shipmasters have voluntarily entered upon the work planned by the U. S. Weather Bureau, in determining the set and drift of currents on the Great Lakes.

The lists for the past few months show that several bottle papers from each of the following observers have been picked up and forwarded to Mark W. Harrington, Chief of the Weather Bureau, within the last ninety days:

Capt. D. Bordeaux, steamer H. J. Jewett; Capt. Lockwood, schooner B. L. Pennington; Capt. John Byrne, steamer Owego; Capt. A. J. Greenlee, steamer Roman; Capt. J. B. Mondor, steamer Minnie M.; Capt. Kirtland, steamer Menominee; Capt. Donald McLain, steamer City of Duluth; Capt. E. J. Rattray, steamer Specular; Capt. D. McLachlan, steamer City of Detroit No. 2; Capt. B. McCaffrey, schooner Hunter Savidge; George W. Downs, U. S. S. Michigan; J. McCallum, steamer City of Alpena; Capt. J. Dunn, steamer Cambria; Capt. George Phelps, schooner Clara Youell; Capt. George H. Martin, steamer United Lumberman; Capt. Walter Robinson, steamer Chemung; Capt. Duncan McLachlan, steamer, City of Detroit No. 1; Capt. George Robinson, schooner M. A. Lydon; Capt. Angus McCormick, steamer City of Duluth; Capt. H. J. Slyfield, steamer City of Mackinac; Capt. W. DeWaite, steamer W. G. Averill; Capt. Joseph White, steamer Jay Gould; Capt. C. Mason, steamer China; Capt. Joseph Braum, schooner Vienna; Capt. J. M. Twitchell, steamer City of Traverse; Capt. A. J. McKay, steamer City of Detroit; Capt. M. J. Haberer; steamer Northern Light: Capt. James Owen, steamer H. R. James; Capt. A. B. Smith, steamer Home Rule; Capt. F. B. Osborn, steamer India; Capt. Lightbody, steamer City of Alpena; Capt. David Morris, steamer H. W. Williams; Capt. P. Fleming, tug Seymour; Capt. A. Keith, schooner E. Fisher; Capt. William McCarty, steamer West; Capt. Campau, steamer Northern King; Capt. Streeter, steamer Norman; Capt. G. Graser, steamer Gordon Campbell; Capt. L. G. Vosburgh, schooner Emma C. Hutchinson; Capt. M. J. Driscoll, steamer Lora; Capt. O. Murphy, steamer Saxon; Capt. Wm. Thorne, steamer North Star; Capt. Robert Murray steamer Vanderbilt; Capt, Robert Smith, steamer Japan; Capt. M. W. Gotham, steamer Briton. In addition to the foregoing, bottle papers have been picked up from the following steamers: Badger State, Northern Light, Gilbert, Gov. Smith, Grecian, North Star, City of Windsor, Corona, Philadelphia, DePere, F. E. Kirby, Norman, Peerless, Rochester and Corona.

The data obtained through the set and drift of these bottle papers, when closely charted, will no doubt show currents hitherto unsuspected, and perhaps account for many seemingly inexplicable strandings, besides giving the lake marine a knowledge which they have long desired to be possessed of.

## CASUALTIES OF THE WEEK.

The large steel steamer "Western Reserve" of which a full account is given in another column of this issue is the most deplorable and unaccountable casualty experienced on the lakes for the past ten years.

Last Wednesday night during a heavy gale from the north, the schooner Nett Woodward attempted to make South Hampton harbor. When about two miles out she was struck by a heavy sea and turned over on her beam ends. The crew with one exception got on the mainmast. The mate, Joseph Greathed, got on a hatch and drifted away. His body was found on the beach the next morning about one mile south of the harbor. Capt. Caldwell and three sailors held on all night. About 3 o'clock Thursday morning N. Mahon perished in the Captain's arms from xposure. His body was washed from the spar, drifted away, and has not yet been found. At daylight the wreck was seen by Capt. Lambert, light-house keeper on Chantry Island, he at once put off in a skiff only 12 feet long and bravely rescued the unfortunate survivors who, but for his timely efforts, would have found a watery grave. The Nett Woodward was owned by Capt. Caldwell and was uninsured. She was partly loaded with cordwood which was owned by Dr. Lowery of Sauble Mills. There is at present no adequate provision for rendering assistance to unfortunate mariners when in distress and immediate steps will be taken to draw the attention of the Dominion Government to the necessity of establishing a life saving station at Southampton, Ont.

Wreckers are at work on the schooner City of Toledo, capsized last Tuesday off Manistee harbor and drowning all hands. Every effort will be made to right the schooner and if possible tow her into port. The body of the cook, Lizzie McMillan, daughter of the Captain, was found drifted seven miles north of the scene of the casuality.

The schooner Oneonta and Guiding Star broke away from the steamer Toledo off Manitou Islands, Lake Superior, in the blow the Western Reserve went down. The steel steamer Northern Wave was close by however, and her Captain at once came to the rescue. He succeeded in getting a line to the Oneonta and the Guiding Star, but when the Northern Wave put a strain on the tow-rope it carried away. Her Captain tried it again, but discovered that the broken line was too short and was then compelled to hail the schooners and warn them that he could do no more for them and that they must look out for themselves. The Captain and crew of the Oneonta expressed their admiration for the gallantry and skill of the Captain of the Northern Wave in the warmest terms. He stood by them heroically and did all that man could do to save them when it looked as if they would be lost if abandoned, the crews of both vessels, however, were ultimately saved although the Gulding Star stranded on Big Bay Point and drove into four feet of water, assistance sent was promptly to her from Marquette.

## THE FREIGHT SITUATION.

Ore freights remain in a practically unchanged condition; grain freights are firmer at Chicago and an advance is predicted. It is now likely that the grain rates will pick up slowly and steadily during the next few weeks, and will be even more slowly followed by a forced advance in ore, although no fancy figures will be obtained. The heavy movement of wheat may be expected to begin at the end of a fortnight, when some lively chartering will be done.

The coal rate to the head of Lake Superior is still 60 cents with no prospect of a change. The Milwaukee and Chicago rates have been fluctuating between 50 and 60 cents, but have settled to 55 cents for Chicago and 50 cents for Milwaukee. On cargoes for Gladstone and Escanaba the rate continues at 40 cents.

The fall weather has set in early this season, and in consequence the owners of some of the smaller boats have threatened to lay them up, saying they can not keep them out of debt at present rates, and with the delays and detention to which all but the largest and staunchest crafts are subjected to on account of rough weather.

## FLOTSAM, JETSAM AND LAGAN.

The Cleveland owned tug C. E. Benham is doing a remunerative rafting business on Lake Superior.

Henry Rigg fell into the river from whaleback No. 115 at Toledo last Thursday and was drowned.

The big cargo of the steamer Mariposa, 3,083 gross tons, was unloaded at the Nypano docks in Cleveland in exactly eight hours.

The barge Sangamon arrived in Cleveland on her maiden trip last Friday night with 3,025 gross tons of ore. She towed this trip with the steamer Ketcham, the Pathfiuder not being ready for service.

Wednesday afternoon while crossing Saginaw Bay, Jean Callinau, mate of the barge Alaska, in tow of the H. J. Kendall fell overboard and was drowned. Callinau lived ten miles back of Black River, Mich.

One or two large transactions in ore that will aggregate 60,000 to 70,000 tons are on the verge of being closed, but the buying of last week was mostly of the 500 ton order. Concessions are being made on certain grades of ores, but No. 1 Bessemer hematites show but slight variations from the $4,25, at which they opened. There is no change in the situation regarding hard ores. The movement to crush these at the mines may put a different aspect on the situation later in the season, but furnace men are acting with great caution, as it were, just at this time.

The new St. Mary's Falls Canal the Canadians are building, will with its branches, be three and a half miles long. The length of the canal proper will be two thirds of a mile. It will have a lock 900 feet long and 60 feet wide. The water on the sills will be 18 feet deep, and the lift will be 18 feet more.

The steamer Ossifrage was purchased for $60,000 from the St. Joseph and Lake Michigan Transportation company by the Smith Fee company of Duluth.

The largest cargo of wheat ever carried out of Chicago was that loaded last Wednesday at Chicago on the Onoko, the first steel steamer ever built in Cleveland. It was 113,734 bushels. The broken record was made by the Western Reserve, lately lost on Lake Superior, and was 115,431 busnels. In weight the Onoko's cargo is beaten only by the record of the steamer E. C. Pope, which carried away 125,730 bushels of corn.

The steam barge D. W. Powers has been purchased by the Shores Lumber Company, of Ashland, Wis., and will go into the lumber trade between Ashland and Chicago, towing two barges. The Powers has a Lloyd's valuation of $17,000. She has been engaged in the lumber trade on Lake Michigan ever since she was built in 1871.

A party of citizens in Marinette, Wis., will build a steamer to carry them to the World's Fair. The boat will be fitted up to board the passengers during their stay at Chicago, and will make several trips home to Marinette during the season. Several hundred people will thus be enabled to take in the sights in comfort and at a small expense.

## STEAM YACHT RACES AT CHICAGO.

*Special to The Marine Record.*

CHICAGO, ILL.—The biggest event of all the year in the way of yacht races is set down for Saturday, Sept. 17th. It is for a contest of steam yachts and launches over a course forty miles in length off the water front. Fourteen yachts are now entered, and it is expected that the number will be increased to seventeen. They will be divided into three classes, which will give the boats proper allowance for differences in size and power. Then there will be another class for steam launches.

The race will be under the rules of the New York Yacht Club, which provides that any boat under sixty feet is a launch and not a yacht. The prizes will be as follows:

First class yachts—First prize, silver cup, value $50; second prize, silver cup, value $25.

Second class—First prize, silver cup, value $25; second prize, silver cup, value $15.

Third class—First prize, silver cup, value $15; second prize, silver cup, value, $10.

First class launches—First prize colors, value, $15; second prize, colors, value $10.

Second class launches—First prize, marine clock, value $8; second prize, marine clock, value $5.

An invitation has been sent out to owners of steam yachts to participate. "We trust," the invitation reads, "that your interest in this noble sport will lead you to accept this invitation to enter your steam yacht in the first steam yacht race ever held in Chicago. The course will be in front of the city, the start and finish to be made from the Lake Front, thus affording a view of the entire race." The invitation is signed by Col. Robert Rae, George Warrington, and Marshall D. Wilder. The contest is under the auspices of the Chicago Yachting Association.

Mr. Wilber, who is the owner of the handsome steam yacht bearing his name, states that the contest will be the initial event of the new yacht club of which Col. Rae is commodore. Nearly all the boats owned in Chicago will take part. Cudahy's Catherine, now at the Straits, will be back in time, and the Boston yacht, Gad About, will still be here. The Buena, Gryphon, Thistle, Argo, Mina and the Wilber will all be in it. The course as now planned, will be from the gap in the breakwater at Van Buren street to the inner Lake View crib, thence east to the outer Lake View crib, from there to the Hyde Park crib, passing east of the four-mile crib, and back to the gap at Van Buren street. The selection of judges and the other preliminaries, Mr. Wilber said, will be arranged hereafter. In addition to the prizes, it is likely that a handsome trohy will be awarded for the best actual time made, without reference to handicap. All the yachts are supposed to burn hard coal, in order that the view from the shore may not be obscured by smoke. Although very common in New York, Mr. Wilber said, this will be the first contest of steam yachts on the lakes. He expected that should the weather be favorable, some fine exhibitions of speed would be made.

## INLAND LLOYDS' SUPPLEMENT FOR AUGUST.

The additions to the Inland Lloyd's Vessel Register for the month of August, as given in the 5th supplement, include ten new boats, five of which are large freighters. The steamers City of Genoa, 1773 tons net, and the City of Naples, 1771 tons, built by James Davidson, of Bay City, for builder's account, (the term being usually understood to be for sale on the best terms which the builder can secure), are each given a valuation of $135,000. The whaleback steamer Pathfinder and consort Sagamore, built for the Huron Barge Company, of which the Mathers own the controlling stock, are valued at $180,000 and $100,000 respectively. The fifth is the passenger steamer Wyandotte, built at Detroit and owned by the Clark estate at Detroit, valued at $75,000. Other new entries are the steam yacht Buena, built by Heath, of Benton Harbor, for the Buena Park Club, Chicago, registering eleven tons and valued at $5,500; the steam fuel lighter Essen, built by the Cleveland Dry Dock Co. for Pickands, Mather & Co., valued at $16,000.

In addition to the above is the wrecking tug C. E. Benham, owned by Captain Benham, of Cleveland, and thoroughly rebuilt this year at a cost almost amounting to her present valuation. She is, however, classed on the first letter, and will, by virtue of her complete rebuild, probably hold the class for many years.

## A NEW STEAM YACHT FOR DETROIT.

The new steel steam yacht "Truant, built for Mrs. Helen M. Newberry, of Detroit, is 131 feet over all, 110 feet on the water line, 17 feet 10 inches beam, 11 feet deep, and 6 feet draught. The hull is of the finest mild steel, painted white, with a pilot house, deck saloon, and the other works above the deck of the mahogany. The machinery and engines are of the latest Herreshoff type, and a guaranteed speed of sixteen miles an hour. The yacht is a single screw, deep water cruiser of elegant style, and a fair degree of speed. She is one of the largest boats ever turned out by the Herreshoffs. The engine is triple expansion with a maximum horse-power of 600, lighted by electricity. The dynamo for the generation of the current is in the engine room, and runs twenty-six incandescent lights, besides a search light of 20,000 candle power, which is quite as powerful as the search lights used on the largest passenger boats. The yacht is also supplied with storage batteries calculated to run the lights on board for eight hours.

## THE CHICAGO SHIP BUILDING CO., WILL CONSTRUCT THE LARGEST DRY DOCK ON THE LAKES.

After a thorough investigation the Chicago Ship Building Co., has concluded to construct the dry dock recently spoked of as in contemplation.

Civil Engineer A. V. Powell has completed borings for the new dry-dock and is quoted as saying: "I found everything most favorable for the dock and a better place could not well be found. My borings were to the depth of sixty-five feet over the entire site. The first fourteen feet was of sand, while the rest was solid clay, perfectly impervious to water. The borings extended over a space 200 feet wide and 500 feet long. A dry-dock at this place can be built as cheaply as at any other point on the lakes. The site of the new dock will be on the line of One Hundred and Second street, extended to the calumet. The dock will de large enough, not only for the largest boats on the lakes now afloat, but will be built for the future, as lake boats are expected to steadily increase in size until some limit is reached. "What that limit is no ship builder ventures to predict, nor can any other authority in view of the recent strives in marine architectute."

## ST. MARY'S RIVER NAVIGATION.

Capt. David Tate, a Sault River pilot, is of the opinion that marine men will not be in a hurry to desert the old river route for the new Hay Lake Channel when it is completed. He is quoted as saying: "When the blockade occurred by the sinking of the Susan E. Peck I took a number of vessel captains over to see the new channel. At the Neebish there is a cut 300 feet wide through the solid rock for a mile and three-quarters, through which the current runs at the rate of rate of six miles an hour. The captains were unanimous in the opinions that vessels cannot successfully navigate this cut until it is cribbed up the entire distance. They also thought the cut at the Little Rapids would be just as bad. Then there are beds of quicksand in Hay Lake which are of a shifting nature, and will continually be filling up the channel unless kept from it is some manner. There are a number of other reasons that make me think it will be a long time before the old channel is entirely given up."

## COL. LUDLOW NOT RE-INSTATED.

Acting Secretary Spaulding of the Treasury, has given out the decision reached by the Light House Board in the case of Colonel William Ludlow, who was until recently the engineer in charge of the Ninth and Eleventh Light-House districts. Colonel Ludlow was relieved from duty, and an effort was made by a number of vessel-owners to have him re-instated. Letters and petitions to that end were received by the Secretary of the Treasury, and by him referred to the Light-House Board. The Board at its meeting on Monday considered these letters and petitions, and in a measure reopened Colonel Ludlow's case. The result was not favorable to the Colonel, however, and the former decision of the Board was reaffirmed. General Poe is at present looking after the Ninth and Eleventh districts, but it is probable that the Secretary of War, at the direction of the President will appoint an officer to the vacancy at no remote day. The aspect of the case affects only the Light-House inspection service, and does not in any way alter the standing of Colonel Ludlow in the Corps of Engineers, U. S. A.

## SAVING LIFE.

*Special Correspondence to the Marine Record.*

MILWAUKEE, WIS.—Captain Davis of the revenue cutter, Andy Johnson has forwarded the name of Quartermaster Walter J. Lasche to Washington for a life-saving medal.

Wednesday afternoon, while on deck, Torey Gerwinski, a young lad, fell from the dock into the river near the Andy Johnson. Lache sprang into a small boat and jumping thence into the river, succeeded in catching Gerwinski as he was going down for the last time, and even then several feet below the surface. He managed to get Gerwinski into the boat with much difficulty, and took him to the Johnson.

In the mean time John Johnson, one of the sailors of the Johnson, had jumped overboard to save the lad, but his assistance was unnecessary, althqugh the bravery of the act deserves first recognition at the hands of the life savings service.

## BRIDGING CHICAGO RIVER.

District-Attorney Milchrist has received instructions from the Attorney-General at Washington to prevent any further work on the Halsted street bridge until the the plans for that structure has been approved by the Secretary of War. In August two protests by the Vessel-Owners' Association were forwarded to the War Department regarding this bridge, and it was stated that the plans contemplated a rushing of work regardless of orders from the Secretary of War or any body else. Under the provisions of the River and Harbor act, however, all projects for bridging or otherwise improving the navigable waters of the United States must be first submitted to the Secretary of War for his approval. Upon the receipt of such communications a reference is made to the Chief of Engineers for investigation and suggestions if any are necessary. This course was pursued in the present instance, and the recommendations of that bureau formed the basis of the Attorney-General's decision.

## NATIONAL BOARD OF STEAM NAVIGATION.

The following notice has been sent to all members of the National Board of Steam Navigation:

DEAR SIR: The twenty-first annual meeting of the National Board of Steam Navigation will convene at the Fifth Avenue Hotel, New York City, on Tuesday, September 13, at 11 o'clock a. m.

There is much of importancc to the steam vessel interests of this country to discuss, and plans to be laid for the defeat of inimical legislatiod, and for the institution of such measures as will conduct to our generni wellfare.

Your presence at this meeting is earnestly requested.

C. W. WOOLSEY, President.

Attest

CHAS. H. BOYER, Assistant Secretary.

## MILLIONAIRES ON A LAKE TRIP.

Notwithstanding the recent fatal casualties on Lake Superior, confidence is unshaken in the iron and steel steamers. The Maritana, built by the Chicago Ship Building Co., and the largest carriers afloat on fresh water, took upon her last trip to Two Harbors several millionaires, inclnding John D. Rockefeller, of the Standard Oil Co.; H. C. Frick, manager of the Carnegie Steel Works at Homestead, Pa.; Jay C. Moorse, president of the Illinois Steel Co.; Col. James Pickands, of Cleveland, and several other magnates. The sumptuous accommodations of the steamer were greatly admired by the party.

## NOTES.

The steamer Ossifrage, which has been owned and run by the St. Joseph and Lake Michigan Transportation Co. between Benton Harbor and Chicago this season, has been sold to the Smith-Fee Co. of Duluth, and will run on the Diamond Star line between Duluth and Hancock, Mich. It is now rumored that Hon. F. W. Wheeler will build a boat at his shipyard this winter for the St. J. & L. M. T. Co. that will be both fast and handsome, besides having a larger carrying capacity than any other boat hailing from Benton Harbor.

A correspondent of the Jos. Dixon Crucible Company, Jersey City, N. J., says: "I have used handhole and manhole gaskets eight to ten times by carefully smearing the surface next boiler shell, taken out at periods of three to four weeks, using steam pressure as high as 100 pounds. In packing water glasses, by putting a little graphite and oil on the gasket, they would vulcanize as soft as lamp wick, and retain their elasticity until the glass was changed, when the old rubber could be removed without trouble, while by the old way I have spent much time in digging out the rubber, baked hard as vulcanite. Another thing I used it for was, after putting back my handhole plate or plugs in back connection, I carefully brush away all the soot and ashes, then with a small brush paint a good coat of graphite over flange, stud and nuts. After running boiler from three to six months, and using coke for fuel, with forced draft, the nuts can be removed without trouble, as the heat has not been great enough to burn the lead."

The last number of the *Journal of the American Society of Naval Engineers*, to be issued in a few days, contains an extremely interesting and instructive account of the chase of the Itata by the Charleston, written by P. A. Engineer Hollis, one of the officers. It recalls the daily routine of the Charleston, the little mishaps to her machinery, what was done to correct them, the effect of the different kinds of coal and an account of the repairs to the Itata, to enable her to return to the United States. Among other valuable articles in the same number, is one on the effect of shoal water on the speed of ships, by Chief Engineer Isherwood; on feed water heaters, by Assistant Engineer Kinkaid; on propellers, by Edward Griffith, of Glasgow, Scotland; on rivited joints, by P. A. Engineer Schell, and the usual number of interesting notes on ships in this country and abroad.

## A CURIOUS ADVERTISEMENT.

THE "WALKING BEAM BOY."

In 1836 the steam whistle had not yet been introduced on the boats of the western rivers. Upon approaching towns and cities in those days, vessels resorted to all manner of schemes and contrivances to attract attention. They were compelled to do so in order to secure their share of freight and passengers, so spirited was the competition between steamboats from 1836 to 1840. There were no railroads in the West (indeed there were but one or two in the East), and all traffic was by water. Consequently, steamboat men had all they could do to handle the crowds of passenger and the tons of merchandise offered them.

Shippers and passengers had their favorite packets. The former had their huge piles of freight stacked upon the wharves, and needed the earliest possible intelligence of the approach of the packet so that they might promptly summon clerks and carriers to the shore. The passengers, loitering in neighboring hotels, demanded some system of warning of a favorite steamer's coming, that they might avoid the disagreeable alternative of pacing the muddy levees for hours at a time, or running the risk of being left behind.

Without a whistle, how was a boat to let the people know it was coming, especially if some of those sharp bends for which the Ohio river is famous, intervened to deaden the splashing stroke of its huge paddle wheels, or the regular puff, puff, puff, of its steam exhaust pipes?

The necessity originated several crude signs, chief among which was the noise created by a sudden escapement of steam, either from the rarely used boiler waste-tubes close to the surface of the river, or through the safety-valve above.

It was reserved for the steamboat "Champion" to carry this idea a little further. It purposed to catch the eye of the patron as well as his ear. The Champiou was one of the best known vessels plying on the Mississippi in 1836. It was propelled by a walking-beam engine.

One day it was discovered that the Champion's escapement tubes were broken, and no signal could be given to a landing-place not far ahead. A rival steamboat was just a little in advance, and bade fair to capture the large amount of freight known to be at the landing.

"I'll make them see us, sir!" cried a bright boy who seemed to be about fourteen years old, who stood on the deck close to where the captain was bewailing his misfortune.

Without another word the lad climbed up over the roof of the forecastle, and, fearlessly catching hold of the end of the walking-beam when it inclined toward him with the next oscillation of the engine, swung himself lightly on top of the machinery. It was with some difficulty that he maintained his balance, but he succeeded in sticking there for fifteen minutes. He had taken off his coat, and he was swinging it to and fro.

The plan succeeded. Although the other boat beat the Champion into port, the crowd there had seen the odd spectacle of a person mounted on the walking-beam of the second vessel, and, wondering over the cause, paid no attention to the landing of the first boat, but awaited the arrival of the other.

The incident gave the master of the Champion an idea. He took the boy as a permanent member of the crew, and assigned him to the post of "walking-beam boy," buying for him a large and beautiful flag.—*L. E. Stofiel, in September St. Nicholas.*

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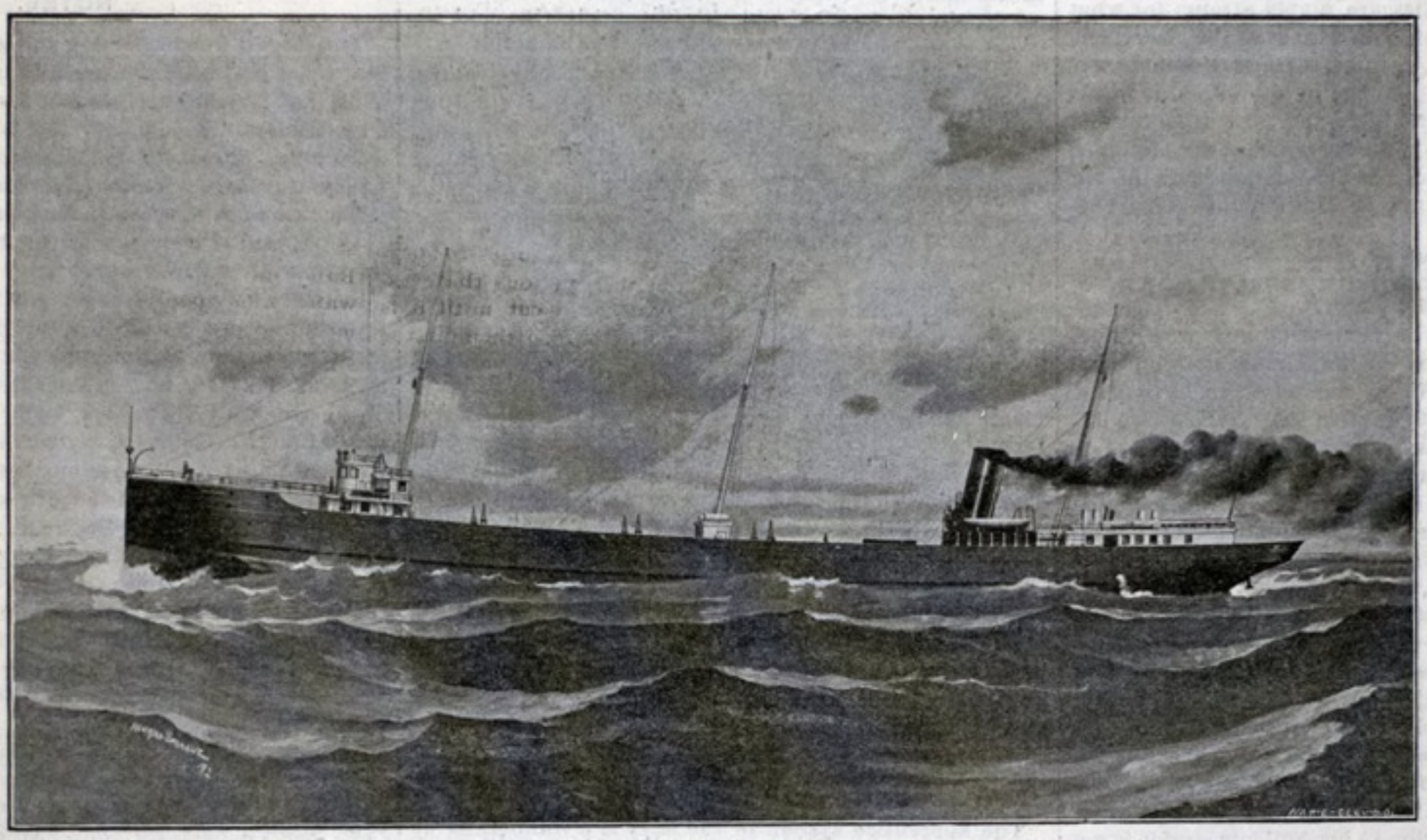
Capt. Joseph O. Doyle, keeper of the life-saving station at Charlotte, is a candidate for the position of Superintendent of the Ninth Life-Saving District, which includes Lake Erie and Ontario, made vacant by the death of Superintendent Dobbins, of Buffalo.

## THE STEEL STEAMER, "W. H. GILBERT."

The illustration presented herewith of the steel steamer, W. H. Gilbert, will give those of our readers not closely connected with the lake marine, a fair idea of the steam tonnage now being put afloat by lake shipbuilders.

The W. H. Gilbert was successfully launched from the yards of F. W. Wheeler & Co. on June 16. She was promptly fitted out and entered into service within a few days after her launch, under the favorable auspices of her owners, the Empire Transportation Co., of Erie, Pa., and commanded by Capt. Calvin Chamberlain, of St. Clair, Mich.

Tne dimensions of the Gilbert are 345 feet over all, 328 feet keel, 42½ feet beam, and 20½ feet depth of hold. Her engines are of the triple expansios type, diameter of cylinders, 24, 36 and 63 inches, by 42 inch piston stroke. Steam is supplied by three 12 by 12 Scotch type boilers, and the steamer is fitted with the Worthington condensers. An Edison electric light plant furnishes an abundance of power for all purposes, and the steam windlass, capstans and hoisting engines are supplied from the main boilers. On launching, the Gilbert showed a mean draft of only four feet, a record in construction of such large tonnage which is difficult to duplicate and proving that the high class of material used in her construction had been placed according to the best skill known in the science of marine architecture. The capacity of the Gilbert is 2,820 tons gross, and 2,200 tons net. She is provided with nine hatchways to facilitate loading and discharging, while the deck space sacrificed in the wake of the hatches is amply compensated for in the extra metal used in the sides, and in the continuous deck strakes.



"W. H. GILBERT."

The Gilbert is valued at $225,000, and rates A1 in the Inland Lloyd's classification books, and it is stated that she has the finest equipment of any freight steamer on the lakes. However this may be, F. W. Wheeler & Co. have evidently turned out a steamer, in construction and equipment, the peer of any vessel afloat on fresh water.

## SPECIAL MEETING OF THE LAKE CARRIERS ASSOCIATION AT CLEVELAND, O.

A special meeting of the Cleveland members of the Lake Carriers Association was held on Monday afternoon in the offices of President M. A. Bradley to take action on the death of Captain Minch and Myers. Captain Albert A. Manning spoke touchingly in enlogy of Captain Minch, his past relations with all of them assembled, and the shock caused by his awful death. Mr. B. L. Pennington, Captain C. E. Benham, Captain Thomas Wilson, and Captain George Stone also paid tributes to the memory of Captain Minch. Mr. J. C. Gilchrist, of Vermillion, spoke of the death of Captain Albert Myers, and told of the reception of the awful news at his home. Mr. Gilchrist said he received a message from Captain Myers' son, Mr. Merwin Myers, who is with the Cleveland Ship Building Company askiag that the news be broken to his mother. "I started on my said errand," said Mr. Gilchrist "and found a crowd on the street discussing a message which had been sent to Mr. Jacob Englebry, announcing his wife's death and the disaster. The people were incredulous, even after they have read my message. The news spread quickly, but did not reach Mrs. Myers or her daughter, Miss Rose, who were calling on friends. On the way home alone, the latter met a lady friend on the street, who rushed to her with expressions of sympathy. When the poor girl learned the truth she fainted in the street."

Captain Thomas Wilson, Harvey D. Goulder, and Captain J. H. Palmer were appointed a committee to draft resolutions expressive of the feelings of the members of the association. They retired for a few minutes, and returned with the following, which were adopted:

IN MEMORY OF THE VICTIMS.

"Whereas, By a most startling and deplorable accident, resulting in the sinking of the steamship Western Reserve, Captain Peter G. Minch, managing owner of the vessel, with his wife and two children, and other members of the family, and Captain Albert Myers, with his entire crew save one, lost their lives, be it

"Resolved, That Captain Peter Minch was one of the most valued members of this Association, and we, his fellow members and his business associates, and friends, bear testimony to his sterling worth as a man. As a vessel master he was accomplished and efficient; as a manager of vessels, he earned a high position; he was in the highest and best sense, honest, truthful, unselfish and charitable in all his dealings and in all his life, a considerate employer, a true friend, a kind husband and father; and to his family, and especially to his bereaved mother, relict of our late lamented friend, Phillip Minch, and to his remaining children we extend our profound sympathy.

"Resolved, That we also take this occasion to express our sympathy with the family of Captain Alfred Myers, a fine type of the American sailor, working his way from the lowest station to the position of master of one of the finest steamships on the lakes. He was a thoroughly reliable accomplished, and competent seaman, with all the generous characteristics of the best of his class.

"Resolved, That to the widows, children and families of those others of the crew so suddenly bereft of the care, support, asd direction of those upon whom they leaned and depended we extend our sympathy.

"Resolved, That the flags of vessels in the Association be set at half-mast on the day of the funeral, and that the members of the Association in this vicinity attend the funeral in a body.

"Resolved. That the Secretary send copies of these resolutions to the mother and to the children of Captain Minch and to the family of Captain Myers.

Upon motion Captain C. E. Benham was selected to carry a copy of the resolutions to the family of the late Captain Minch and Mr. C. J. Gilchrist was selected to perform the same office with respect to Mrs. Myers and her family.

## THE NIAGARA LIFE-SAVING STATION.

It is now learned that the new life-saving station near the mouth of the Niagara river will not be constructed before next year. The specifications have been completed and advertisements will be issued in about a month, calling for bids. It is expected that the contract will be awarded at once, in order that the contractor may be ready to begin the construction as soon as the frost is out of the ground next spring.

# The Marine Record,

ESTABLISHED 1878.

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IRVING B. SMITH. }
CAPT. JOHN SWAINSON. } - - - Proprietors.

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CLEVELAND, O., SEPTEMBER 8, 1892.


THE recent foundering of the steel steamer Western Reserve, has given rise to many conjectures regarding the structural strength of iron and steel ships. In so far as the construction of the Western Reserve was concerned, she was a steel steamer having the following hull dimensions: 300 by 41 by 24¼ feet; and an eminent naval architect, in a treatise on "American Shipbuilding and Lake Transportation," written about the time the Western Reserve was built, stated that "this vessel's co efficient is about 84. She carries 3,450 tons dead weight on 16 feet mean draft of water, and though her lines are full, as of course they must be, to lift such an enormous cargo, she steams and steers well. Her hatchways are about the most commodious of any on these lakes, yet, notwithstanding this, her topsides are amply strong; for what with double strappings on both flanges of the girder, and bulb angle beams on every frame, there is nothing more to be desired." From the foregoing quotation it would appear that all conjectures regarding the capability of the hull to withstand the work for which it was designed should be treated carefully, as the actual cause of the loss may not have had any bearing on the initial construction of the hull.

### THE WESTERN RESERVE CASUALTY NOT A PRECEDENT.

After a large number of expert (?) and practical (?) steel shipbuilders, who, by the way, know nothing at all about the construction of any class of ships, have given their unreserved and hasty opinion that the Western Reserve broke in two, and was structurally weak, it has, as a matter of course, remained for the parties, who have made shipbuilding a life study, to look into the most minute details, and the result is most satisfactory to the steel shipbuilding industries of the lakes in particular, and the world in general,

The builders' specifications for the Reserve called for "ample material: in fact superior to most ships used in the ore trade," is a statement made by one of our trusted shipbuilding experts on the construction of modern lake tonnage. We are also able to state, as positive facts, that in general construction and material used, she was ten per cent. heavier than tonnage of similar capacity and even larger dimensions. These indisputable facts are a source of much gratification to her builders, and it is not within the province of any person living, to say that should any steel ship now on the lakes, be placed in the same position, under exactly the same circumstances, but that she would have shared the same fate as the Reserve. Future developments may throw some additional light upon this, at present, incomprehensible casualty, and it is most creditable to her builders that they are among the most anxious to find some flaw in the structural plans which might develop a weakness under severe strain, but as yet they have been unable to detect anything of the kind, and this dreadful calamity can not establish a precedent of any kind. The assertion that the Reserve was light, and having only her after compartments in her water bottom filled, and was driven at full speed into a head sea, is an important factor in the situation, and has called forth diverse opinions, which, however, should not be given any great amount of attention, at least until the positive facts in the case are more fully known.

### METAL VERSUS WOODEN SHIPS.

The loss through foundering, of a large steel steamer on Lake Superior last week, has given rise to a vast deal of discussion in the daily press regarding the structural strength and capabilities of iron and steel vessels.

Many experienced vessel men have gone on record as being entirely opposed to metal hulls, believing that the longitudinal rigidity under certain conditions can not be maintained, and that sooner or later, the metal vessel demonstrates her inability to cope with the elements by suddenly foundering.

At this late date it would seem to us a work of supererogation to even argue with such a class of men on the relative merits of wood, iron, steel or composite shipbuilding. The day for even doubting the life, strength, capabilities and general adaptation of metal ships, in their superiority to wooden vessels, has long since passed, and those who would argue in favor of wood, simply place themselves in the category of antediluvians, and support the theory entertained by the venerable, if not revered, constructor of the historical ark.

In treating of the relative merits of the different types of construction, it is but necessary to point to the tonnage now engaged in the North Atlantic trade, which may rightfully be considered the hardest and most trying experience for structural strength. From the mammoth Great Eastern to the equally heavy tonnage now under construction in British shipyards, we find iron *the only* material being used. Wooden shipbuilders have "thrown up the sponge," and the law of the "survival of the fittest," is amply demonstrated from all sources and localities; hence, the iron and steel ships have come to stay, until superseded by a superior metal, perhaps, in the form of aluminum, or other, at this time, undiscovered, material.

There is such a thing as proper treatment, even to a vessel, and the professional skill gained only by experience, is brought distinctly to bear in the handling of a hull under the varying conditions of the weather. It may be, in some cases, that a vessel, and by this term we speak inclusively, from a row boat upwards to a ship or steamer of five or ten thousand tons, is clearly drowned by sheer force of undue treatment or neglect. When, however, the circumstances are such as to preclude the possibility of the foregoing points of skill, being brought into question, ulterior and anterior effects need to be considered, but seldom is it found necessary to refer to the initial ablity or structural capability of a vessel built, recorded and classified under the most scientific and advanced rules known to the modern art of shipbuilding.

It should also be borne in mind that although radical departures in the architecture of modern vessels are being indulged in, these theories, whims, notions, or what not, must always be endorsed by competent authority before the structure can be commercially recognized; hence the *ensemble* of a hull, regarded simply as an iron bridge, beam or girder, is tested for not only the initial or actual stress, but a large percentage, as a factor of safety, is liberally computed for before any universally recognized classification society will vouch for or endorse the tension or strain to which the body may be subjected to, longitudinal or otherwise. Further than this, the reasonable man may simply note the utility, life, economy and performances of the several types of construction in everyday practice, and from actual results determine the best. To assist the judgment in reaching an intelligent basis, it would be well to remember that but a few years ago it was said that wire rigging put over the mastheads of a wooden vessel would have the effect of opening up her topsides, and as a consequence make a leaky and generally unseaworthy vessel out of an otherwise perfect ship. This plausible theory, which thousands stood ready to demonstrate, has now exploded, and the iron age rules paramount by virtue of its indisputable superiority.

### NAVAL APPRENTICES.

The apprentice system in the navy is a comparatively recent departure. In years past two or three attempts were made to take boys into the navy and train them for service as regular seamen, but in these first attempts there was a lack of system, and they were not successful. The present system was inaugurated four or five years ago, much time and attention being given to its perfection in all its details, and the result is to-day a school into which boys may be taken and trained as successfully for the duties of seamen as the cadets are fitted for officers by the academy at Annapolis.

There are several stations in the country where enlistments for the apprentice service may be made, either to the chief of the Bureau of Navigation, or to the commanding officer of either of the following ships: U. S. S. Richmond, Coaster's Harbor Island, near Newport, R. I.; U. S. S. Minnesota, foot of West Fiftieth Street, North River, New York City; U. S. S. Wabash, navy yard, Boston, Mass.; U. S. S. St. Louis, navy yard, League Island, Philadelphia, Pa.; U. S. S. Dale, navy yard, Washington, D. C.; U. S. Michigan, Erie, Pa., or during her cruise upon the lakes, and such other vessels as may from time to time be designated for this service.

The aim of the service is to secure the very best possible specimens of boyhood, both mentally and physically, and to this end the candidates for enlistment must pass quite a rigid examination.

First. He will have to be between the ages of fourteen and seventeen.

Second. He will have to be accompanied by his parent or guardian, whose consent to his enlistment would be necessary before he was received. In case the parent, from age, illness, or other cause, was unable to appear, a printed form of "consent, declaration and oath," might be had on application to the commanding officer of the receiving ship, or to the chief of the Bureau of Navigation, and this filled out and signed would serve in place of a personal visit. In case the applicant, being otherwise a desirable candidate, was so unfortunate as to have no parents or guardian, the navy would take that responsibility upon itself.

The principal points of the physical examination being undergone, he must fulfill other requirements as to sight and hearing, and ability to distinguish colors, while the presence of any deformity or organic disease would disqualify him for service.

He must also be able to read and write, and it is preferred that he shall understand the rudiments of arithmetic, but in cases where the applicant is otherwise entirely satisfactory, his deficiency in these points may be overlooked.

All these preliminaries being arranged, the recruiting officer carefully reads over to him and explains the articles of enlistment. He must agree to serve the United States until he is twenty-one years of age. In return he will be paid in the beginning at the rate of $9 per month, be given his rations and lodging, and will be trained to be a thorough seaman and fitted to fulfil the position of a warrant officer, but he cannot become a commissioned officer. His parents or guardian must relinquish all claims to his services until his term of enlistment is over, and application for his discharge during minority will not be favorably considered except under very extraordinary circumstances. The United States, in fact, assumes the place of a parent to him, and becomes responsible for his training in every respect during his term of apprenticeship.

### NOTES.

THE largest wooden sailing ship ever built in the United States has just been successfully launched. Her length is 311 feet 2 inches keel, 49 feet 2 inches beam, and 29 feet 2 inches depth of hold, 345 feet over all. She registers 3,400 tons. About 40 hands all told will be necessary to handle this large vessel, and yet her owners expect to get a fair rate of interest on the investment. If they do, the Roanoke will travel in a streak of luck such as other wooden vessels seldom meet with.

SECRETARY of the Navy Tracy has just ordered some important changes made in the cruiser New York now nearing completion at Cramp's Ship Building yards, Philadelphia, Pa. The changes made are mainly in reference to the armor, the intention being to use vertical faced instead of the inclined armor plate as originally called for. Another important change has been the removal of the five-inch ammunition tube of armor, which extended from the turret through the unarmored main deck to the protected deck, preventing the supply of ammunition from being cut off, and protecting the ammunition and the men handling it against fragments of shell bursting on board between the hilt and the barbette.

The Secretary of the Treasury awarded a contract August 23d, to the Union Dry Dock Company of New York for the construction of the new revenue marine boarding vessel Calumet, for use in the harbor of Chicago. The sum stipulated is $36,675. The Calumet is to be one of the best small boats yet built in this country. She will be 94 feet 6¼ inches long over all, with 20 feet 6 inches beam. Her extreme draught will be 8 feet 10 inches, with her coal and stores on board, and her hold will be 10 feet 3 inches deep. She will be built of iron and will be fitted throughout with all modern appliances and every convenience for the officers and crew. She will be driven by a single crew operated by a fore and aft vertical compound engine, with cylinders 18½ by 32 inches in diameter and a 26-inch stroke of piston. Steam will be generated in a Ward water tube boiler, 11 feet 6 inches diameter and 9 feet high, which will carry a working pressure of 120 pounds of steam. The total horse power of the machinery will be about 375. She will mount one small rapid-fire gun on her forecast probably a three pounder Hotchkiss. When completed at New York her contractors will take her to Chicago by way of St. Lawrence and the lakes.—*The Engineer, New York.*

The Union Dry Dock Co., is an extensive and well known ship building firm, located at Buffalo, N. Y. hence, it will not be necessary to go through the St. Lawrence system of canal to reach Chicago with the completed vessel.—Ed.

### A COAST GUARD PATROL.

General Supt. Kimball, of the Life Saving Service has sent the following telegram to the keeper of the Life Saving Stations in the United States: "Information has been received of efforts to evade the quarantine regulations of the country by persons attempting to land from foreign vessels on beaches and places outside of established ports of entry. You are therefore directed to prevent the success of all such attempts within your province." This will result in the establishment of a most effective cordon along the entire cost of the United States.

## DECLARES TUGS MUST NOT SMOKE.

*Special Correspondence to The Marine Record.*

CHICAGO, ILL.—The Chicago tugs must smoke no longer. Judge Gresham so decided saturday. The court over-ruled the tugmen on all points and refused to enjoin the city from prosecuting tug-owners for violating the smoke ordinance. The police power, he said, was ample to compel obediance to the regulations passed by the city, and there was no interference with navigation or commerce. Attorney Matz, representing the Smoke Prevention Society, and Assistant Corporation Counsel Cheltain, who won the victory for the city say they will now prosecute with vigor all violations of the ordinance. It is not likely, however, that there will be many such cases, inasmuch as the tugmen say they will obey the court. They will take the case to the United States Court of Appeals, where their attorney, Robert Rae, confidently expects a reversion of the decision. The appeal will be perfected tomorrow morning. Judge Gresham's decision was as follows:

This is a suit by the Dunham Towing and Wrecking company against the City of Chicago to enjoin the city from enforcing the ordinances to abate the smoke naisance. It is claimed by solicitor for complainant that the complainant's tugs are employed in carrying on foreign and inter-State commerce in the Chicago River and the Harbor of Chicago, and that the ordinances are an unauthorized interference with the right of Congress under the Constitution of the United States, to regulate commerce. The owners of these tugs must obey the acts of Congress. so far as they relate to navigation and the regulation of commerce in the Chicago River, and they must also obey all ordinances passed by the City Council of Chicago for the reasonable protection of the inhabitants in their health and in the enjoyment of their homes and property, and the police power of the inhabitants of the municipality to protect and defend itself against harm.

It does not follow that because it would be somewhat inconvenient and more expensive for the owners of the tugs to comply with the ordinances, that they are void. If it is true—and I, upon the facts before me, believe it is—that the emission of volumes of smoke from the tugs while navigating the river is a serious annoyance to the people and an injury to their homes, places of business, and property, and that there are known means by which this evil could be avoided or largely diminished, the ordinances are valid, and the complinant has no more right to remain a nuisance upon the Chicago River than it has on the streets of the city. The question is not, as the solicitor for the complainant seems to think, what benefit has been conferred by the tug owners in the past, but whether in the growth of the city the City Government may reasonably complain against the continued use by the tugs of bituminous coal.

It is true that Congress has the exclusive right to regulate commerce between the United States and foreign nations and between States. And it is equally true that the States did not surrender to the Federal Government the police power which they possessed before the Constitution was adopted. The exercise of one power is not inconsistent with the exercise of the other. This is not a case in which the City of Chicago, under the guise of the exercise of the police power, has undertaken to regulate commerce on the navigable waters of the United States.

The motion for a preliminary injunction is denied.

The arguments and the reading of affidavits occupied all the morning and a portion of the afternoon session. Attorneys Rae and Wilberforce represented the tug men while Assistant Corporation Counsel Chetlain appeared for the city, and Attorney Matz for the Smoke Prevention Society. The affidavits filed the day before by the tug men were read. when it came to the reading of Expert Warrington's affidavit touching the injury done the tug Ewing by the smoke prevention device the Court interested. He said Mr. Warrington was unfair in his comments, in alleging that the device has injured the boiler of the tug, but made no mention of the other two devices used, which might have done the injury. The Court had quite a sharp dispute with Col. Rae on this point and finally the Court informed the lawyer that he talked altogether too much.

For the city several affidavits were read, showing that it was practicable to use smoke preventors. The most interesting affidavits were those of John V. Farwell Jr. and J. K. Harmon of the J. V. Farwell company. Mr. Farwell affirmed that the loss of the firm's business by means of the great clouds of smoke which came from the river tugs and blackened the dry goods of Farwell & Co, was $5,000 per annum. The smoke came through the windows of the warehouse in clouds, and in addition to the damage to goods also injured the health of the employes. Mr. Harmon's affidavit was to the same effect, except that he estimated the annual damage at $15,000 instead of $5,000.

Col. Rae talked for two hours. He argued that the power the city was assuming was a violation of the constitxtional rights of free commerce between the States. If the tugmen were compelled to go to additional expense in using hard coal or smoke-preventors it would lncrease the tonnage charges and trade would be driven to Milwaukee and other ports. Congress assumed jurisdiction over the river, licensed the engineers, regulated the navigation in every way, and the city had no right to step in and assume any of these functions of the General Government.

When Capt. J. S. Dunham read Judge Gresham's decision he said it meant hard coal or no coal at all for tugs. The Judge had, in effect, said the city had the right to prevent tugs burning bituminous coal. When asked what he would do in view of the decision, Capt. Dunham said he would put hard coal on his boats as fast as he could accustom his firemen to the use of it. He had no faith in any of the smoke consuming devices. They did well enough for exhibition but when it comes to actual work they were of no account. He said he would use hard coal long enough to see what effect it would have on the smoke nuisance, bnt he would not pledge himself to continue its use, if all the chimneys in town went on making smoke, as he said they do now. Capt. Dunham said further, that the prosecutions against the tugs was a bunko game being played by the railroads and persons instrumental in forming the Society for the Prevention of Smoke.

PETER G. MINCH.

## OBITUARY.

CAPT. PETER G. MINCH.

The sad casuality on Lake Superior last Wednesday resulting in the loss of 26 lives, called from the vessel owning community one of the most succesful business men and vessel owners on the lakes.

Capt. Peter G. Minch was born at Vermillion, Ohio, the 19 of January 1842, and was therefore 50 years of age at the time of his loss. He had an interesting family consisting of three sons and three daughters. He was widely known throughout the country for his splendid success as manager of the extensive shipping interests he owned. His business was established by his father Philip Minch forty-five years ago. Philip Minch died in 1876, at which time Capt. P. G. Minch succeeded as owner of the vessels. He rapidly developed a marked capacity for business of that kind, and his interests grew and increased until he established a very enviable reputation for reliability, promptness and efficiency in all his business operations. Besides his shipping interests, he was engaged in a large number of other business enterprises in which he was equally successful. He owned and operated the steamers Western Keserve, Onoko, Philip Minch, Horace Tuttle, John N. Glidden, and A. Everett, and the schooners Sophia Minch, Fred A. Morse, and George H. Warmington.

The Captain's early career was spent in sailing on the lakes, and there were few more successful shipmasters than he was; thoroughly master of his business, he handled the vessels under his command with that skill which can only be obtained from hard practical experience in the duties of a shipmaster. On his retirement from sailing several years ago Captain Minch maintained his record as a man of commercial integrity; generous and sympathetic, and whenever an apportunity was found to ameliorate the condition of his fellow men the Captain could always be counted on. This was perhaps more noticeable by his uniform courtesy and good treatment of those who sailed in his employ, from deck hands up, the late vessel-owner and shipmaster, believed, and honestly carried out his convictions, that the best possible treatment was none too good for those who had to gain a livelihood by sailing, hence, he was highly respected by lake seamen. His body was recoved from the scene of the casualty, and arrived at Cleveland Thursday morning, where after suitable ceremonies it will be consigned to its last resting place.

## FOUNDERING OF THE STEAMER WESTERN RESERVE.

As we went to press last week the starting intelligence was flashed over the country of the foundering of the steel steamer Western Reserve, on Lake Superior, in a hard northwesterly gale and heavy sea.

The Western Reserve cleared from Cleveland for Two Harbors, Minn., on Sunday, Sept. 4, with a crew of 21 hands, all told, and six passengers, including the owner, his wife, her sister and three children.

The steamer proceeded all well until about midway between White Fish Point and Keweenaw, when she commenced to make water rapidly, and from the account of the only survivor, who was asleep up to the time of the abandonment, the steamer had jumped the mainmast out of her, and stove in her plates, besides showing signs of breakiug at some point not yet determined, although it is said that the break took place well forward and in the wake of the fore hatch.

From the meagre account furnished by Harry Stewart, the only survivor of the casualty, it is learned that two boats were lowered away about 9 p. m, on Tuesday night, and one, the metallic lifeboat, capsized immediately, drowning several of its occupants; the other boat, in which was the master, owner and his family, lived all the rough the night, up till 7 a. m. on Wednesday, when she capsized about a mile from the shore off Grand Marais, and Stewart, who had a cork jacket on, struck out for, and reached the beach, while all the rest were drowned.

The sad casualty has cast a gloom over vessel circles all over the lakes, and the accident is pronounced unaccountable, as the ship was one of the newest and best steel steamers in the lake service. Several bodies have been recovered, and a lookout is being kept for others that may be washed ashore. The steamer is sunk in about 100 fathoms of water, and it is not likely that any attempt will be made to salve any portion of her equipment.

## WILL THE DOMINION GOVERNMENT PAY THE TOLLS.

*Special Correspondence to The Marine Record.*

TORONTO, ONT.—The question of the course to be pursued with reference to the imposition of the retaliatory olls against Canadian ports at the "Soo" Canal was considered at Saturday's Cabinet meeting held at Ottawa, but no decision, it is underslood, was reached, except to set aside some day early this week for another meeting and the coming to a conclusion. It should not be forgotten that the Government has not yet expressed an opinion on the advisability of reimbursing shippers the amount of tolls taken from them at the St. Mary's Canal. That was certainly the view expressed by Mr. Haggard, but I understand that no decision was reached on that poiut at the late meeting. The absence of the First Minister was, of course, a block to any formal conclusion on any subject of first importance. When news came of the issue of the President's proclamation, Mr. George Taylor, M. P., at once wrote to Sir John Thompson, urging him that the Dominion Government skould station an agent right at the St. Mary's Canal, empowered to pay the tolls on each Canada-bound vessel on the spot.

## AN INCLINED TRIPLE EXPANSION ENGINE.

The first inclined triple expansion engine ever built on the Lakes, and, it is believed, ever built in this country, is now on board the fine new side-wheel passenger steamer, City of Toledo, running between the Islands and Toledo, O.

The engine has cylinders 26, 42 and 66 inches in diameter, by 72 inch stroke. The high pressure cylinder is placed between the intermediate and low-pressure cylinders, and has a piston valve actuated by a Joy radial valve gear; the intermediate and low-pressure cylinders have double ported slide valves and ordinary link motion. The steam pistons are made very deep and have a special arrangement for taking up wear; the piston rods are of steel; connecting rods, guides, shafts and crank pins of scrap iron forgings; and cranks of steel castings. The pump is operated independent of the main engine, and is of the duplex type; having 14-inch steam cylinders, 20-inch air cylinders, and 20-inch stroke: The wheels are of the feathering type, 19½ feet outside of floats, which are of steel 9½ feet wide, there being nine to each wheel. The manner devised by the engine builders for supporting the engine in the hull is noteworthy, from the fact that there is a total absence of vibration, even when running at highest speed. This was accomplished by a judicious combination of partial horizontal and vertical bulkheads. Two boilers 10 feet 10 inches diameter, by 21 feet long, of the gunboat type, furnish steam at 160 pounds pressure. Each boiler has three 46-inch furnaces, and they are run with natural draught. On trial these engines have developed 1,641 indicated horse-power, running at 40 revolutions per minute.

A feature of this type of engine is the very small amount of space taken up on the main deck, being merely room for cranks to turn, and for operating platform back of cranks. Ventilating trunks only are run up through the upper deck.

The Cleveland Shipbuilding Co. are the builders of this engine, which was designed by Mr. A. Angstrom, of that company.

The contract speed of the City of Toledo was 16 miles an hour, but she has exceeded that, having put on record a run of 16 miles in 47 minutes, or at the rate of 20.4 miles an hour.

The builders of this special type of engine are deserving of great credit for making a very compact and servicable engine, which is well adapted for a high speed side-wheel boat. It takes up much less space and can be better placed in the ship than any of the engines heretofore in general use.

## LIST OF VESSELS BUILT BY F. W. WHEELER & CO.

The following is a list of vessels built and equipped at the yards of F. W. Wheeler & Co., West Bay City, Mich., in addition to the several contracts now on hand. The list serves as a shipyard record and a full account of each future launch as it occurs, will be found in the columns of THE MARINE RECORD, as in the past:

| | | |
|---|---|---|
| Mary Martin. | Wm. H. Gratwick. | Geo. Houghton. |
| Luther Westover. | F. W. Wheeler. | C. J. Filmore. |
| Christina Forbes. | Sitka. | Jno A. Francombe. |
| Hannah B. | Gogebic. | Dredge. |
| Marion Teller. | Mecosta. | Nyanza. |
| B. W. Liken. | Elfin Mere. | A. C. Tuxbury. |
| Lycoming. | Tom Adams. | Redfern. |
| Conemaugh. | Geo. Morley. | W. H. Sawyer. |
| Charles Cuyler. | Moravia. | Edward Smith. |
| Maud S. | Robt. L. Fryer. | City of Chicago. |
| Saginaw Valley. | Soo City. | Emily P. Weed. |
| Fred. McBrie. | Servia. | Mackinaw. |
| Galatea. | Frank D. Ewen. | Newell A Eddy. |
| Handy Boy. | Eber Ward. | Olive Jeannette. |
| Osceola. | John V. Moran. | Keweenaw. |
| Kittie M. Forbes. | Geo. W. Roby. | Tampa. |
| Sarah M. Smith. | John M. Nicol. | C. H. Bradley. |
| F. W. Wheeler. | John Mitchell. | Michigan (car ferry |
| Alta. | Fedora. | F & P. M. No. 5. |
| Tempest. | News Boy. | W. F. Sauber. |
| Waldo A. Avery. | Monarch. | Sailor Boy. |
| Thomas S. Christie. | Romeo. | Iosco. |
| A. Folsom. | Juliet. | Uganda. |
| B. W. Arnold. | John Plankinton. | Jno C. Fitzpatrick |
| H. A. Hawgood. | Plow Boy. | C. F. Bielman. |
| Ossifrage. | Post Boy. | Light Ships 51, 52, |
| W. H. Stevens. | Lulu Eddy. | 53 and 54 for U. |
| W. R. Stafford. | Fred. B. | S. Government. |
| Mabel Wilson. | Geo. F. Williams. | |

The officers of the company as at present constituted are F. W. Wheeler, President; George F. Williams, Superintendent; J. R. Goodfellow, Treasurer; F. L. Gilbert, Secretary.

## NO MORE "CHEAP" ENGINEERS FOR HIM.

Cheap men, or men who voluntarily offer their services in the labor market at a lower rate than the field of labor commands, are seldom, if ever, paying servants. Under this caption the *Scientific Machinist* recently published the following: "I shall never hire another 'cheap' engineer, but shall get the best that can be had, regardless of wages," said the owner of a large fleet of lake steam barges, a short time ago. "For a number of years we have kept what we considered the medium class, who were not the best, yet as good as we thought necessary, and were hired for from $200 to $400 per year less than the best. But it does not pay. The few boats on which, for one reason and another, the highest priced men have been retained, have been the greatest earners and there has been less expense, all things considered, chargeable to their machinery department. They have no break-downs, their machinery is not ruined, and they know what must and what must not be done. I remember several years ago, when a man (who was willing to work for $20 a month less than the one engineering the boat he wanted) cut the valves up in such a manner that it took 240 tons of coal per month, against 175 previously used, to run her, that I resolved to have no more of that kind. I did not stick to it then, but I will now." And we believe he has done so and that the example will be followed by every owner.

## THE STEEL STEAM YACHT "SAY WHEN."

The large photo-gravure supplement presented to the subscribers of THE MARINE RECORD with this issue, represents one of the finest equipped, and probably the fastest steam yacht on the lakes.

The "Say When" was built by Herreshoff, Bristol, R. I., for Norman Munro, and was shortly afterwards purchased by Mr. W. J. White, Cleveland, O., who had her brought to the lakes in September, 1890, where she has since remained, giving excellent satisfaction, and carrying the pennant for speed and equipment. The speed record of this handsome yacht is in excess of 26 miles an hour, and she has been spoken of by competent authority as being a perfect combination of wood and metal. Her general dimensions are 140 feet over all, 114 feet on water line, 12½ feet beam, and 5½ feet draft with fuel on board. The propeller wheel is four feet in diameter, with 8 feet lead. She is furnished with a quadruple expansion engine; diameter of high pressure cylinder 11½, intermediate 16 and 22, low pressure 22 and 22, by 14 inch stroke of piston, and the Roberts Safety Water Tube boiler; also an elegant electric light installation, the lights showing through various colored glasses and making a singularly fine display. The yacht's displacement is about 100 tons, so that her total weight, boiler and machinery included, is not greater than the weight of a large modern steel steamer's boilers. Assuming her displacement co-efficient of performance, to be 200, she would require 1,328 h. p. to attain the unprecedented speed for a yacht of nearly 27 miles an hour, and equal to 12¼ h. p. per ton of displacement.

The ownership of the "Say When" has fallen into good hands, as Mr. White is a liberal and progressive citizen, who takes pleasure in conveying to his friends all possible enjoyment, and his handsome yacht has frequently been placed at their disposal, being also the flag ship on the recent regatta of the yachting association held at Cleveland, O. The "Say When" is under the command of Capt. J. D. Todd, with Mr. Schoumen as chief engineer.

## LAKE EXHIBITORS AT THE WORLD'S FAIR.

The following named firms have applied for space for transportation exhibits and though not numerous are representative.

Detroit, Mich. Detroit Boat Works, Davis Boat & Oar Co., Harvey C. Beeson.

Battle Creek, Mich. N. O Osgood.

Grand Rapids, Mich. T. H. Truscott & Sons

Madison, Wis. State Historical Society.

West de Pere, Wis. D. Kidney & Son.

Racine, Wis. Racine Hardware Manufacturing Co

Milwaukee, Wis. For the citizens, C. C. Rogers, The Sheriffs Manufacturing Co.

Chicago, Ill. Thos. Kane & Co., David Richards, Chicago Ship Building Co.

Cleveland, O. The Globe Iron Works Co., Cleveland City Forge & Iron Co., E. Nicholson, Lakewood near Cleveland.

Buffalo, N. Y. David Bell, Steam Engine Works Pratt & Letchworth.

EX-COMMISSIONER of Navigation William W. Bates, probably the very best authority in the country on the subject, places the amount paid to foreign vessels for freight charges alone in the year 1890 at $207,083,310, and of course they have since increased with our rapidly growing foreign trade. With the amounts paid foreign vessels for passenger service and carrying our mails added to this, it easily exceeds an estimate of $25,000,000, which has recently been used in statistics.

A REPORT has been received regarding the working of the Magnolia metal in a large engine built by Messrs. W. B. Thompson & Co. for use in the Serajgunge Jute Mills, India. The Magnolia metal is fitted into the crank-shaft bearings, and also in cross head slide-blocks, and at the steam trial everything is said to have worked smoothly, and without the slightest heating.—*Fairplay, London.*

## PROPOSALS.

U. S. ENGINEER OFFICE, Duluth, Minn., August 19, 1892.—Sealed proposals for constructing a breakwater at Ashland, Wisconsin, will be received at this office until 12 m., September 27, 1892, and then publicly opened. Specifications, blank forms, and all available information will be furnished on application to this office. W. L. FISK, Captain, Corps of Engineers.

U. S. ENGINEER OFFICE, Duluth, Minn., August 16, 1892.—Sealed paoposals for constructing a breakwater at Agate Bay, Minn., will be received at this office until 12 m., September 27, 1892, and then publicly opened. Specifications, blank forms, and all available information will be furnished on application to this office. W. L. FISK, Captain, Corps of Engineers.

U. S. ENGINEER OFFICE, HICKOX BUILDING, 185 Euclid Avenue, Cleveland, Ohio, August 15, 1892. Sealed proposals for dredging in straight channel through Maumee Bay, for Toledo Harbor, Ohio, will be received at this office until 2 o'clock p. m. of Thursday, September 15, 1892, and then publicly opened. Specifications, blank forms, and all available information will be furnished on application to this office. JARED A. SMITH, Lieut. Col. Corps of Engineers, U.S.A. 9-1-15

U. S. ENGINEER OFFICE, 34 WEST CONGRESS ST., DETROIT, MICH., August 17, 1892. Sealed proposals for: 1, Dredging Black River, at Port Huron, Michigan: 2, Dredging mouth of Black River at Port Huron, Michigan, will be received at this office until 2 p. m. September, 16, 1892, and then publicly opened. Specifications, blank forms, and all available information will be furnished on application to this office. O. M. Poe, Colonel Corps of Engineers, etc. 8-18-9-8.

U. S. ENGINEER OFFICE, DETROIT, MICH., August, 16, 1892. Sealed proposals for: 1. Dredging bar at mouth of Saginaw River, Mich. 2. Dredging Essexville bar near mouth of Saginaw River. 3. Dredging west channel along West Bay City, Mich. 4. Dredging channel of Saginaw River above Bay City, Mich., will be received at this office until 2 p. m. September 15, 1892, and then publicly opened. Specifications, blank forms, and all available information will be furnished on application at this office. O. M. Poe, Colonel Corps of Engineers &c. 8-18-9-8.

U. S. ENGINEER OFFICE, 366 MILWAUKEE ST., MILWAUKEE WIS., Aug. 12 1892. Proposals, Harbor Improvements, Lake Mich. Sealed proposals for Green Bay Harbor, Wis., Dredging 120,000 cubic yards, more or less. Sheboygan Harbor, Wis., Pier Extension 200 feet with Superstructure. Port Washington, Harbor, Wis., Pier Extension 100 feet with Superstructure. Harbor of Refuge, Milwaukee, Wis., Extending Breakwater 500 feet, and 300 feet of Superstructure. Milwaukee Harbor, Wis., Cutting down and rebuilding 200 feet of Superstructure; repairing 250 feet of piers, and taking out and replacing with new 264 protection piles. Racine Harbor, Wis., Pier Extension 250 feet, and repairs. Kenosha Harbor, Wis., Pier Extension 150 feet. Waukegan Harbor, Ill., Pile Pier 376 feet, will be received at this office until 12 o'clock, noon, Monday, September 12, 1892, and then publicly opened. Specifications, blank forms, and all available information will be furnished on application to this office. James F. Gregory, Major of Engineers, U. S. A. 8-18-9-8.

TREASURY DEPARTMENT, OFFICE of General Superintendent U. S. Life-Saving Service, Washington, D. C., August 18, 1892. Sealed proposals will be received at this office until 2 p. m. of Saturday, the 17th day of September, 1892, for furnishing supplies required for use of the Life-Saving Service for the fiscal year ending June 30, 1893; the supplies to be delivered at such points in New York City, Grand Haven, Mich., and San Francisco, Cal., as may be required; and in the quantities named in the specifications. The supplies needed consist of Beds and Bedding, Blocks and Sheaves, Cordage, Crockery, Furniture, Hardware, Lamps, Lanterns, etc.; Lumber, Medicines, etc.; Paints, Oils, etc.; Ship Chandlery, Stoves, etc.; Tools and Miscellaneous articles, all of which are enumerated in the specifications attached to the form of bid, etc., which may be obtained upon application to this office, or to the Inspector of Life-Saving Stations, 24 State street, New York City; Superintendent Eleventh Life-Saving District, Grand Haven, Mich., and Superintendent Twelfth Life-Saving District, Appraisers' New Building, San Francisco, Cal. Envelopes containing proposals should be addressed to the "General Superintendent U. S. Life-Saving Service, Washington, D. C," and marked on the outside "Proposals for Annual Supplies." The right is reserved to reject any or all bids and to waive defects, if deemed for the interests of the Government. S. I. KIMBALL, Gen. Supt. 8-25-9-8